

Persatuan Pengguna Pulau Pinang Consumers Association of Penang

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Animals hurt in bad light

More people are switching to cost-saving and energy-saving light emission diodes (LED) lights and this includes outdoors such as highways and gardens. No doubt LEDs are energy efficient and generate significantly less heat than their predecessors, incandescent and fluorescent lamps, they, however, is a bane to nocturnal animals.

LEDs engender other forms of environmental and human health hazards by disrupting their biorhythms. Wildlife will be imperilled by constant exposure to its high intensity, blinding them and disrupting their life cycle. Birds are among those in the animal kingdom to become victims of artificial lighting.

In October, the Energy and Natural Resources Minister called on the people to dim the lights at night to prevent disturbance to migratory birds as they migrated through the Bako Buntal Bay in Sarawak for a stopover during flight. Malaysia, being one of the 19 member countries of the East Asian-Australasian Flyway (EAAF), should seriously consider the consequences to birds when exposed to bright lights. The attitude and response towards this issue will determine whether the problem will be addressed with real determination or merely a rhetoric exercise.

The migration of birds is an exciting time for nature lovers and outdoor enthusiasts to observe these many species of migratory birds landing on their stopover sites. Migration is physically taxing and often fatal endeavour for the birds.

Since most songbirds migrate at night, the bright lights at night on large buildings are a significant contributor to the fatality of these birds. Birds attracted to bright city lights will veer off course and fly towards the city which will expose them to more hazards.

Burrow-nesting seabirds are another group of birds known to be adversely affected by artificial light at night. The light attracts, and when disorientated by light-induced landings, they are at risk of collision with man-made structures. Once grounded these birds may not be able to take flight and are at risk of predation, starvation, dehydration and eventual death in a scientific finding in a study titled Seabird mortality induced by land-based artificial lights.

Light pollution is increasing globally with a number of increasing documented impacts on the environment. Matt Shardlow of the insect charity 'Buglife' observed that light pollution has a massive impact on the local population of insects leading to a drastic decline in insect abundance. In Malaysia, light pollution has been identified as one of the major threats to the mating rituals of the 100 species of fireflies throughout the country. Insect loss can have a trickling effect on biodiversity as birds, reptiles, amphibians and fish depend on insects as their food source.

Other examples of the negative impact of light pollution at night are:

- Wetland habitats can also be impacted by glare from artificial lights which can interfere with amphibians' reproduction and thus reduce their population.
- Sea turtles are also impacted by artificial lights that lead them away from the ocean as they become disoriented from the glaring bright lights as in the case of hatchlings which find the sea by detecting the bright horizon over the ocean.

Many types of wildlife are dependent on natural light to sustain their routines and without natural light, they can become confused, and visible to predators and their survival is at risk. Light pollution has been found to have altered the night-time environment of nocturnal animals which sleep during the day and are active at night, by turning night into day. Artificial light affects many forms of life – diurnal and nocturnal – in terms of migration, reproduction, and feeding as well as human health linked to the elevated risk of certain cancers as pointed out by the American Medical Association (AMA).

In view of the multitude of problems caused by light pollution, the Consumers Association of Penang (CAP) would urge local researchers to conduct studies on the effects of artificial light on our ecosystem and to propose mitigating measures to the government.

It is essential that researchers provide a database on the risks of LED to human health and wildlife to provide advice and information to decision-makers who are more likely to go with the cheapest lighting that serves only one purpose while disregarding other interests.

The Consumers Association of Penang (CAP) urges all State Housing, Local Government and Environment in individual states to switch to LED streetlights and should select those with covered bulbs, ensuring that light shines downwards with minimal reflection in the sky.

We also encourage the government and households to adopt International Dark-Sky Association (IDA) recommendation that only warm light sources for outdoor lighting to minimise blue emissions be used.

The cheapest and easiest way is for people to switch off unnecessary lights when about to sleep. Lights outside the house do not need to be switched on throughout the night as lights with motion sensors are now easily available in the market.

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